DOCUMENT RESUME

ED 349 394 CE 061 714

AUTHOR Purton, Debbie
TITLE Literacy for Adults with Learning Disabilities. Project Report.
INSTITUTION Parkland Regional Coll., Yorkton (Saskatchewan).
SPONS AGENCY National Literacy Secretariat, Ottawa (Ontario).
PUB DATE 92
NOTE 48p.; For a related report, see CE 061 713.
AVAILABLE FROM Parkland Regional College, 72 Melrose Avenue, Yorkton, Saskatchewan S3N 1Z2, Canada ($5).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Basic Education; *Adult Students; *College Programs; *Educational Resources; Foreign Countries; *Learning Disabilities; Material Development; *Program Development; Program Effectiveness; Student Personnel Services; Tutors; *Volunteer Training
IDENTIFIERS Parkland Regional College SK

ABSTRACT

A 2-year developmental project was designed to accomplish the following: (1) identify screening and assessment procedures appropriate for adults with learning disabilities; (2) determine training requirements for volunteer tutors matched one-to-one with learning disabled adults; (3) determine support services required by adults with learning disabilities; (4) compile a list of resources; and (5) prepare specialized instructional resources suitable for use by volunteer tutors working with learning disabled adults. During the project, an initial screening checklist was developed, a diagnostic process was implemented, the volunteer training requirements were identified, and tutors were trained and began working with the adult students. It was found that project participants needed a variety of support services, so a support group was formed to address their needs. Publications containing lists of resources and teaching strategies were developed and used in the project. It was concluded that most of the learners involved in the project displayed multiple areas of learning dysfunction. Most participants achieved an improved self-concept. The importance of providing specialized training and ongoing support to tutors and students was established. A special strength of the program was the intense collaboration among learners, tutors, and project staff. (Appendixes to the report contain the annotated lists of 17 professional reference and training resources and 23 educational resources developed by the project.) (KC)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED349394

# Literacy for Adults with Learning Disabilities
# Project Report

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D Purton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

**Debbie Purton**
**- Parkland Regional College -**

CE061714



NCLE
1118 22nd STREET, N.W.
WASHINGTON, DC 20037

BEST COPY AVAILABLE

## ACKNOWLEDGEMENTS

Parkland Regional College gratefully acknowledges the grant from the National Literacy Secretariat, Department of Multiculturalism and Citizenship, which has funded this developmental project.

---

We also thank Elisabeth Stewart, Project Consultant, for the time and expertise shared to assist our organization with this project.

---

Published by: Parkland Regional College
72 Melrose Avenue
Yorkton, Saskatchewan
S3N 1Z2

© Parkland Regional College, 1992

NCLE
1118 22nd STREET, N.W.
WASHINGTON, DC 20037

## - TABLE OF CONTENTS -


| | |
|---|---|
| Introduction | 1 |
| Statement of Purpose | 2 |
| The Relationship Between Limited Literacy and Learning Disabilities | 3 |
| Implementation Plan | 4 |
| Program Model | 6 |
| Diagnostic Process | 7 |
| Training Requirements of Volunteer Tutors | 10 |
| Project Design | 13 |
| Case Studies | 15 |
| Support Services | 29 |
| Difficulties Encountered in the Project | 30 |
| Summary and Conclusions | 32 |
| References | 34 |
| APPENDIX: Publications | |
| - Professional Reference and Training Resources | 36 |
| - Educational Resources | 40 |

# INTRODUCTION

In 1989, Parkland Regional College undertook a two-year developmental project for the purpose of developing an intervention model appropriate to the needs of adults with learning disabilities.

The project was both exploratory and developmental in nature; that is, it was not designed to test a particular hypothesis. Rather, its purpose was to provide effective literacy training to learning disabled adults using individualized tutorial instruction. To achieve this goal, it was necessary to collect information on existing practices, and to further develop methods and materials relevant to the teaching of literacy skills to adults with learning disabilities.

This report, which is intended to assist literacy and learning disability organizations in future programming efforts, outlines the scope of work undertaken and presents the major findings of the project.

There is a great need for shared information and continued research related to the field of learning disabilities and the adult learner. It is our hope that this information will assist others in understanding and responding to the needs of this special population.

## STATEMENT OF PURPOSE

The main objectives of this project were:

1) to develop or identify screening and assessment procedures appropriate for adults with learning disabilities;

2) to identify the training requirements of volunteer tutors who were matched, on a one-to-one basis, with learning disabled adults;

3) to determine the support services required by project participants;

4) to compile a list of recommended resources; and

5) to prepare specialized instructional resources suitable for use with learning disabled adults.

## THE RELATIONSHIP BETWEEN LIMITED LITERACY AND LEARNING DISABILITIES

"In a society which values literacy and provides universal public education through high school, what can be the cause for the huge numbers of its citizens unable to read, write, and compute well enough so that they can function successfully in their world? What is certain is that there is no single cause. Illness, poor understanding of spoken English, lack of access to schooling, emotional disturbance or severe deprivation, family or societal disorganization, poverty ... all have an impact on learning.

There is, however, a major additional factor which has only recently begun to receive the attention which it deserves. Finally, it is beginning to be recognized that hidden within the large number of illiterates exists a significant sub-population ... individuals with learning disabilities: those individuals whose illiteracy is directly tied to a severe learning disability."

(Project READ, 1990, pp. 3 & 4)

Nationally, the percentage of individuals who are learning disabled is estimated to be approximately 10 per cent of the general population. Some of these individuals were able to access special services within the school system which enabled them to develop basic skills. Others, however, have gone on to adulthood with very minimal reading and writing skills. It is this latter group which is returning, after many years of struggle, to adult education programs for literacy training.

A review of recent literature supports estimates that between 40% to 70% of students enrolled in adult literacy programs have learning disabilities. Regardless of the exact figure, it is safe to state that a significant number of adult learners enrolled in literacy and other upgrading programs have some degree of learning disability.

As reinforcement of this reality, the Learning Disabilities Association of Canada released a position paper on illiteracy and learning disabilities. Among the recommendations made, the following are directly applicable to literacy groups:

> ... that post-secondary institutions actively combat illiteracy through the training of professionals and para-professionals in effective educational services, including remediation and accommodation for people with learning disabilities.
> ... that all literacy programs provide comprehensive training for service providers to ensure effective educational services for people with learning disabilities.
>
> (LDAC, 1988)

We strongly support these statements and have attempted, through this developmental project, to begin building the necessary links between research/recommendations and adult education practices which would enable one to effectively meet the literacy needs of learning disabled adults.

## IMPLEMENTATION PLAN

The initial phase of the project included the development of an effective referral base. To achieve this, a series of activities and events, based on guidelines set by the Learning Disabilities Association of Canada, were organized. These guidelines, as outlined by LDAC in a report released in April 1989, state that the role of the intervening agent should include:

- information sessions on learning disabilities and illiteracy;
- promoting understanding of academic, emotional, occupational and social impact of learning disabilities and illiteracy;
- sensitization to emotional consequences of adults with learning disabilities and their psychological reactions to academic work and learning in general ...

(LDAC, April 1989, p. 8)

Operating within these guidelines, the following activities were undertaken to develop an increased awareness level within the region and to establish a referral base:

- distributed press releases to the media,
- participated in television and radio interviews to discuss the project,
- developed an informational brochure outlining project goals and activities,
- organized an inter-agency meeting to overview the project, and
- conducted presentations to Adult Basic Education instructors within the region.

As a result of these promotional activities, 20 referrals were received. Of this total, 19 individuals were assessed during the course of the project as learning disabled.

The next phase of the project involved the establishment of a program design suitable for adults with learning disabilities. The model adopted for the project - individualized instruction utilizing a one-to-one tutorial approach - was based on recommendations outlined by LDAC in a report entitled *Study of Literacy and Learning Disabilities*. According to the Learning Disabilities Association of Canada, the following principles should be considered in designing a literacy program for adults with learning disabilities:

- One-to-one instruction must be considered a crucial component in the design and delivery of literacy programs to adults with learning disabilities.
- Learners require an atmosphere of extreme trust in order to build their levels of self-confidence and self-esteem. This is accomplished through various techniques that emphasize positive feedback and reassurance.
- Tutors must be sensitive to the needs of adult learners and to the difficulties and challenges that may be involved in working with such a group.
- Tutors must be prepared to develop a 'long term' and 'ongoing' relationship with learners, and to the extent possible, high turnovers of tutors must be avoided.

(LDAC, June 1989, p. 39)

Using an established volunteer base at Parkland Regional College, tutors were recruited to work, on an individual basis, with learning disabled adults. Volunteers involved in the project were requested to make a minimum time commitment of two hours of tutoring per week over the period of one year. Flexibility in lesson times and location was encouraged to accommodate the needs of each learner. Specialized training sessions were also organized for volunteer tutors to develop the skills and sensitivity necessary to meet the varied needs of adults with learning disabilities. (For a more detailed description, refer to: *Training Requirements of Volunteer Tutors*.)

The project operated on a continuous intake basis and, for this reason, the amount of instruction received by learners varied substantially.

Upon program entry, learners went through an assessment process. One of the major points raised by both literacy and learning disability experts, as highlighted in the *Study of Literacy and Learning Disabilities* report, was that "literacy programs should be geared toward the achievement of 'successes', rather than the correction of faults." (LDAC, June 1989, p. 38)

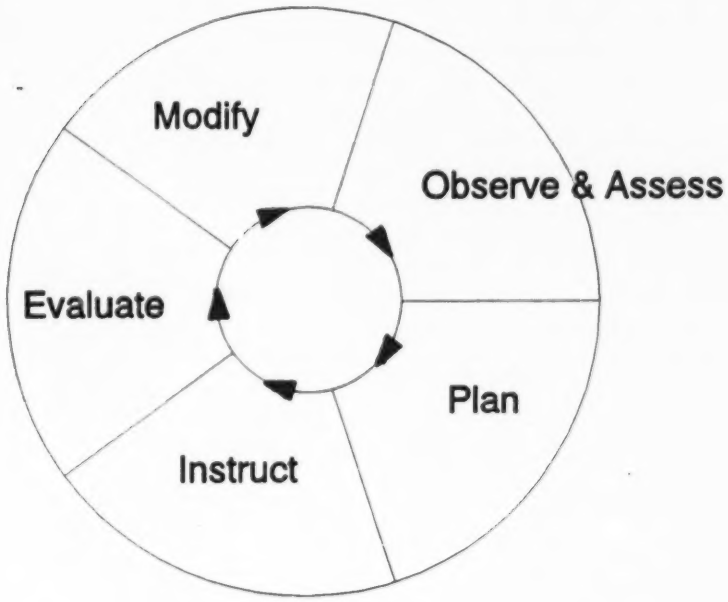
To avoid the use of a 'deficit skills' model, it was essential that learners' strengths receive as much attention as areas of difficulty. A diagnostic battery, which provided this 'balanced picture' of specific learning strengths and weaknesses, was identified and implemented. (Refer to: *Diagnostic Process* for additional information.)

An assessment report was then prepared by the Project Coordinator in consultation with the Project Consultant. A conference between the Coordinator, volunteer tutor and adult learner followed. During this meeting, assessment results were explained and a general discussion of teaching strategies ensued. Following from this, the tutor/learner pair began the tutoring process to implement the individualized program plan.

Ongoing support and supervision was provided by the Project Coordinator during the teaching/learning cycle. Ongoing evaluation provided the feedback necessary to make revisions to the program plan, when necessary.

## PROGRAM MODEL

The program model, which was adopted to meet the needs of project participants, is based on Janet Lerner's clinical teaching cycle. The steps involved include: assessment, planning, instruction, evaluation and modification. The cyclical nature of this model is illustrated below:




(Lerner, 1988)

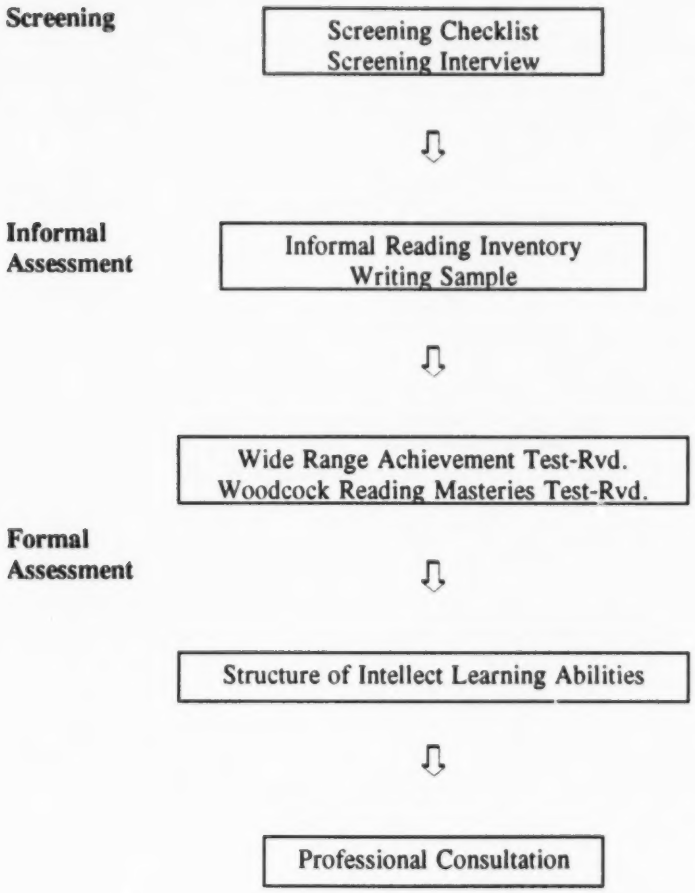
"The adult learner must be an equal partner in the remediation process and it is in the assessment that this message is conveyed. Assessment should build from the student's goals, and expectations. It unfolds as a dialogue between counsellor or teacher and the student through observation, interview, tests, test analyses, discussion and planning. It should be an ongoing process that concludes only when the student has completed his study."

(Project READ, 1990, p. 72)

## DIAGNOSTIC PROCESS

The diagnostic process outlined below, which is comprised of both informal and formal assessment procedures, was implemented for the purposes of:

a) identifying adults with learning disabilities;
b) establishing the present level of competency and identifying learning strengths and weaknesses;
c) obtaining information which is easily translatable into the development of individual program plans.



The following narrative reviews each of the preceding components of the diagnostic battery and discusses the contribution of each to the assessment process.

The **Learning Disability Screening Checklist** is an initial screening device which was developed for use by professionals and para-professionals who are not necessarily trained or experienced in the identification of educational problems. The checklist is designed to focus observations on four general areas of functioning - language, literacy, memory/organization and social skills. The screening checklist assists program staff in identifying adults who may be at risk for having learning disabilities.

The aim of the **Screening Interview**, which is the second step in the assessment protocol, is to obtain information in the following areas: family background, medical information, educational background and vocational history. *Bringing Literacy Within Reach*, developed by the Learning Disabilities Association of Canada, includes an excellent screening questionnaire which can assist literacy workers in obtaining this information.

**NOTE:** The aim of both the screening checklist and interview is to help make a distinction between the adult literacy learner and an adult with a learning disability. These protocols will assist literacy workers in identifying if a *discrepancy* in areas of ability exists. The presence of a discrepancy factor may be indicative of a learning disability and would warrant further assessment.

An **Informal Reading Inventory** provides the examiner with an informal measure of the student's decoding and general comprehension skills in oral reading. It also provides the examiner with an opportunity to analyze reading miscues or errors, and to determine strategies which the student currently employs during the reading process. This information is invaluable in later determining appropriate instructional strategies.

A **Writing Sample** is also obtained as part of the assessment battery to determine the learner's present level of competency. The sample is elicited, without time constraints, on a topic chosen by the student. The writing sample is evaluated in terms of: handwriting, spelling, vocabulary, punctuation and the ability to organize thoughts.

The **Wide Range Achievement Test - Revised** (WRAT-R) is a widely used measure of basic academic skills. It has proven to be particularly useful in obtaining an initial estimate of student's skills in the areas of reading, spelling and arithmetic. The WRAT-R is age appropriate for adult learners, is statistically sound, and can be administered in 20 - 30 minutes.

The **Woodcock Reading Mastery Tests - Revised** (WRMT-R), word attack sub-test, provides detailed information on basic decoding skills. Error analysis can also be completed for an in-depth diagnosis of strengths and weaknesses. Other WRMT-R sub-tests (which include letter identification, word identification, word comprehension and passage comprehension) may be administered at the examiner's discretion for a more comprehensive profile of current reading abilities. This assessment device is appropriate for students ranging in age from 5 to 75, with administration time varying between 10 to 30 minutes for each subtest.

**The Structure of Intellect Learning Abilities Test** (SOI-LA) is an assessment measure designed to assess a wide variety of cognitive abilities in both children and adults. The test, which is based on Guilford's Structure of Intellect model, measures 26 abilities most closely related to success in academic or vocational training.

In addition to general cognitive assessment, the SOI-LA test has also been widely used for the following purposes:

- diagnosis of learning disabilities;
- detailed profiling of strengths and weaknesses of the educationally handicapped;
- determining the presence of developmental vision problems that may interfer with learning;
- analysis of strengths and weaknesses in the skill elements underlying achievement in math and reading;
- prescription of specific teaching methods, cognitive training materials, and curriculum materials for remediation or enhancement; and
- evaluation of the effectiveness of special school programs and educational treatments, including those materials and methods related to the SOI-LA.

(Meeker, Meeker & Roid, 1985)

The SOI-LA assessment is different from traditional intelligence testing in that the focus is not only on describing *how much* but also *what kind* of intelligence is present. In addition, the SOI assessment provides specific information on five OPERATIONS (cognition, memory, evaluation, convergent production, divergent production), three types of CONTENT (figural, symbolic, semantic), and six PRODUCTS (units, classes, relations, systems, transformations, implications).

By combining specific subtests on the basic SOI-LA, it is also possible to obtain insight into the development in the following academic skill areas: reading (foundational and enabling skills), arithmetic and mathematics skills. Specific abilities assessed by the SOI-LA test have been found to be prerequisite to the acquisition of these academic skills. Individual scores obtained enable the diagnostician to determine strengths and weaknesses, and to develop a program which focuses on using the learner's strengths to compensate for, or assist in the training of, specific weaknesses.

## TRAINING REQUIREMENTS OF VOLUNTEER TUTORS

"Illiterate adults with learning disabilities must be attracted to literacy programs and, once present, need to be made to feel secure in the learning environment. In the typical literacy training environment, the past negative learning experiences of an individual will surface, thus affecting their degree of trust and motivation to learn. To effect positive change in the learning environment, literacy workers must have a basic understanding of learning disabilities and of the adult with learning disabilities, as well as knowledge of appropriate remedial/intervention resources."

(LDAC, 1989, p. 4)

For tutoring efforts with learning disabled adults to be effective, it is critical that volunteer tutors receive sufficient training in the area of learning disabilities. This need for specialized training was clearly identified during the initial stages of the project. Upon entering our program, two adult participants stated that they had already tried at least one other literacy program in an attempt to improve their skills. Both individuals cited that former programs didn't meet their learning needs for two main reasons - namely, a lack of proper assessment and ineffective tutoring by volunteers.

The popular "guesswork" approach to tutoring, in which a variety of tutoring approaches are tried before successful techniques are identified, can be exceedingly frustrating for any adult learner - but particularly so for an adult with a learning disability who has experienced so much failure in past attempts at learning. While the tutor and coordinator struggle to determine which approach will be most helpful, the student leaves, once again, with the painful reinforcement that he must be "unteachable".

To avoid these frustrations, for both the learner and the tutor, the training requirements of volunteers must be clearly identified and addressed. Through literature searches and ensuing discussions with professionals working in related fields, several common training needs emerged.

Literacy tutors should receive training which addresses the following points:

- definition, cause and frequency of learning disabilities
- explanations of specific learning disabilities, i.e. dyslexia, dysgraphia, dyscalculia, etc.
- awareness of the characteristics of adults with learning disabilities
- overview of problems in specific learning processes ie. difficulties in visual perception, auditory perception, memory, sequencing, etc.
- understanding of the educational, emotional, social and vocational impact of learning disabilities
- overview of general tutoring principles
- awareness of instructional strategies appropriate for adults with learning disabilities.

Following these general guidelines, training sessions were organized for volunteer tutors who were matched with learning disabled adults. Workshop evaluation questionnaires were distributed to the thirty tutors who participated in these specialized training events. A summary of responses follows.

## TUTORING LEARNING DISABLED ADULTS
## WORKSHOP EVALUATION QUESTIONNAIRE: A SUMMARY

Thank you for participating in this workshop. We hope the time you spent was useful and productive. To help plan future training events, please take a moment to complete this questionnaire.

1. How would you rate your knowledge of the topics addressed in the workshop, prior to your attendance?

| | | | | | | |
|---|---|---|---|---|---|---|
| low | 4 | 12 | 6 | 6 | 1 | high |

(1 - did not repsond)

2. How would you rate your knowledge of the topics addressed in the workshop, **now**?

| | | | | | | |
|---|---|---|---|---|---|---|
| low | ___ | 1 | 4 | 16 | 8 | high |

(1 - did not respond)

3. How would you rate the workshop in terms of:

a) clarity of presentation

| | | | | | | |
|---|---|---|---|---|---|---|
| poor | ___ | ___ | ___ | 6 | 24 | excellent |

b) organization of presentation

| | | | | | | |
|---|---|---|---|---|---|---|
| poor | ___ | ___ | ___ | 6 | 24 | excellent |

c) the facilitator's knowledge of the material

| | | | | | | |
|---|---|---|---|---|---|---|
| poor | ___ | ___ | ___ | 1 | 29 | excellent |

d) level of content

| | | | | | | |
|---|---|---|---|---|---|---|
| too easy | ___ | 2 | 21 | 5 | 1 | too difficult |

(1 - did not respond)

e) amount of learner participation or group work

| | | | | | | |
|---|---|---|---|---|---|---|
| too little | ___ | 3 | 23 | 4 | ___ | too much |

f) relevance to your work or interests

| | | | | | | |
|---|---|---|---|---|---|---|
| not relevant | ___ | ___ | 2 | 13 | 15 | very relevant |

**Tutoring Learning Disabled Adults**
**Workshop Evaluation Questionnaire: A Summary**

**Page 2**

**4.** How would you rate the following:

a) the LVA slide presentation was

| | | | | | | |
|---|---|---|---|---|---|---|
| not relevant | ___ | 1 | 2 | 10 | 16 | very relevant |

b) "Breaking the Unseen Barrier" video was

| | | | | | | |
|---|---|---|---|---|---|---|
| not relevant | ___ | ___ | ___ | 5 | 23 | very relevant |

(2 - did not respond)

c) the handouts were

| | | | | | | |
|---|---|---|---|---|---|---|
| not relevant | ___ | ___ | ___ | 5 | 24 | very relevant |

d) the simulation exercises were

| | | | | | | |
|---|---|---|---|---|---|---|
| not relevant | ___ | ___ | ___ | 4 | 24 | very relevant |

## PROJECT DESIGN

The project was originally designed to be exploratory and developmental in nature. As the project evolved, various components relating to both the assessment and teaching process underwent experimentation before a final design was chosen. During this process of transition, students were accepted into the program and registration continued on a continuous intake basis. For these reasons, there is a lack of consistent data which would enable meaningful statistical analyses to be conducted.

We have chosen, therefore, to use a case study approach to demonstrate both the effectiveness of the tutorial approach and the flexibility required in meeting individual needs.

## POPULATION DESCRIPTION:

Of the twenty participants who were originally screened and assessed during phase one of the project, only one did not qualify as learning disabled given the categories outlined by the SOI-LA. Of the remaining nineteen, three individuals exited the program before personal goals were met - two were not ready to make a serious commitment at that time and one was incarcerated. Four adults gained full-time employment as a result of enhanced skills and improved self-confidence. Six individuals made successful transitions to Adult Basic Education or other related programs. The remaining six adults are still currently involved in the program as they continue to work toward individually set goals.

The breakdown, in terms of gender and ethnicity of project participants, is as follows:

| | MALE | FEMALE |
|---|---|---|
| Native | 1 | 3 |
| Non-native | 11 | 5 |

The ages of participants ranged from 19 to 56 years of age. In terms of the educational level completed prior to program entry, the range was from no formal education to grade 12.

Through the assessment process, certain patterns emerged when learner profiles were compared. First, the degree of disability being encountered was significant; these adult learners were highly vulnerable, and had not experienced much degree of success in their academic histories. Secondly, the type of disabilities encountered fell into four general categories: language-based difficulties, systems disabilities, vision dysfunctions and memory disabilities. Each of these areas is discussed in more detail below:

1) **Language-based Difficulties**

These learners experience great difficulty in working with words and ideas. Their skills tend to be more non-conceptual and auditory in nature. Specific areas of weakness may include one or more of the following: vocabulary; verbal relations skills; ability or fluency of words and ideas; and reading fluency.

2) **Systems and/or Memory Disabilities**

An inability to deal with systems of information is the profile most often associated with dyslexia. These learners experience difficulty processing information - either visually, auditorally or both. If memory is also an area of weakness, learners will have difficulty 'holding' information in mind long enough to process it efficiently.

3) **Vision Dysfunctions**

If there are difficulties with learning due to physiological problems related to vision, these difficulties must be addressed either previous to, or concurrently with, any specific intervention. The importance of adequate vision in relation to learning tasks and reading should not be underestimated; both visual acuity and the development of eye coordination and tracking skills are essential foundational reading abilities. The learner who has difficulty with the SOI subtests related to visual skills will experience difficulty with prolonged visual tasks. If difficulties with vision-related tasks are evident through the assessment process, referral to a developmental vision optometrist should be made.

The following chart represents a breakdown of types of disabilities which were identified through the assessment process:

| TYPE OF DISABILITY | Language-based | Systems | Vision | Memory |
|---|---|---|---|---|
| No. of participants | 17 | 13 | 11 | 13 |
| Percentage of subgroup to total no. of participants (n = 20) | 90% | 68% | 58% | 68% |

With this information, it is obvious that many of the individuals participating in the project possessed multiple deficiencies in the learning abilities assessed through the SOI-LA. Given the severity and extent of the disabilities or learning deficiencies identified, it was projected that improvements in academic performance would take considerable time and effort on the part of both the learners and tutors involved.

## CASE STUDIES

Five case studies have been included to demonstrate the effectiveness of tutorial intervention as outlined in this report. The case studies which follow illustrate the uniqueness of each learner's reasons for enrolment, time available for learning, and level of success in reaching stated goals. Each case study contains a brief history of the learner, initial assessment results, an overview of the intervention process, and a comparison of past and current levels of performance. This information, when examined collectively, illustrates the academic progress achieved during participation in the project.

### CASE STUDY 1: Dan

Dan joined the adult literacy program at Parkland Regional College in September, 1990 at which time he was matched with a volunteer tutor. In working with his tutor over a period of several months, the tutor began to suspect a learning disability. It was at this point that Dan's tutor suggested he seek further information and possible testing through the Learning Disabilities project.

**Background Information:**

Dan is 36 years old, married and has one child. He currently owns and operates a small business, but wishes to upgrade his skills by enrolling in a related course. To be eligible for the program, he must pass an entrance exam. On previous attempts in writing the entrance exam, Dan failed to meet established criteria. In working with a tutor for a few months, both the tutor and Dan had certain questions about his difficulties which neither could answer. It was at this point that Dan established contact with the Learning Disabilities project.

According to Dan, lack of reading speed, comprehension, understanding the meaning of words and choosing the correct mathematical operation were areas which had been difficult in school. These same problems were also of concern to him now that he was operating a business. Everyday business routines, such as reading and responding to correspondence and report writing, were areas of great difficulty for him. On such tasks, Dan often had to ask his wife or an employee for assistance. He wished to address these learning difficulties to alleviate business-related problems as well as to enable him to successfully pursue further education.

**Test Performance and Interpretation:**

The screening checklist and initial interview further substantiated Dan's self-stated areas of difficulty. The Canadian Test of Basic Skills (Form 5) was administered to establish a reading comprehension grade level under time constraints as this paralleled testing conditions on the entrance exam. Dan scored at a grade 7.4 level exhibiting a high degree of accuracy but a very slow rate of reading. The SOI-LA (Form A) was then administered to determine specific areas of strength and weakness. According to SOI results, Dan's preferred learning style is symbolic. Both figural and semantic abilities were below average, indicating difficulty with spatial concepts

and language processing. Auditory memory skills were at the limiting range; comprehension abilities were in the low average range. Areas of strength identified included: visual memory and problem solving with symbolic information. As the SOI assessment also indicated a potential vision dysfunction, Dan was referred to a developmental vision optometrist for vision follow-up. An oculo-visual examination revealed difficulties with convergence abilities and poor accommodative facility. A home program of daily vision exercises was recommended with a review in 4 weeks. A follow-up examination indicated increased fusional vergences and more quick, accurate accommodative facility. No further visual treatment was required at that point.

**Intervention:**

With business and family commitments, tutoring arrangements had to be very flexible. Some weeks Dan and his tutor were able to meet twice a week, while during peak business periods lessons were held only once every two or three weeks. With the extra information obtained through the assessment process though, Dan and his tutor were able to modify their original tutoring program to meet his particular needs based on learning strengths. Time spent in tutoring became more focused on areas of need, while less time was required to determine "what to do next" or "how to approach particular areas of difficulty". Strategies focusing on reading comprehension, reading fluency, arithmetic processes and auditory memory training were implemented. Dan recently commented on the benefits of the program stating, "The tutoring helped me find the proper direction to go in and gave me some guidance to get there."

To date, Dan has received approximately 96 hours of tutorial assistance with an additional 320 hours spent in independent study. Dan continues to work with his tutor and plans to rewrite the entrance exam within the next few months confident that he can now achieve his goals.

During the course of Dan's participation with the Project, contact was initiated with the post-secondary institution involved to determine if extra supports and/or accommodations could be made to assist Dan with the entrance examination and, once accepted, with on-going course work as well. Additional time on the entrance exam has been granted, while inquiries continue to determine the type of support services Dan can access at the point of program entry.

**Post-testing:**

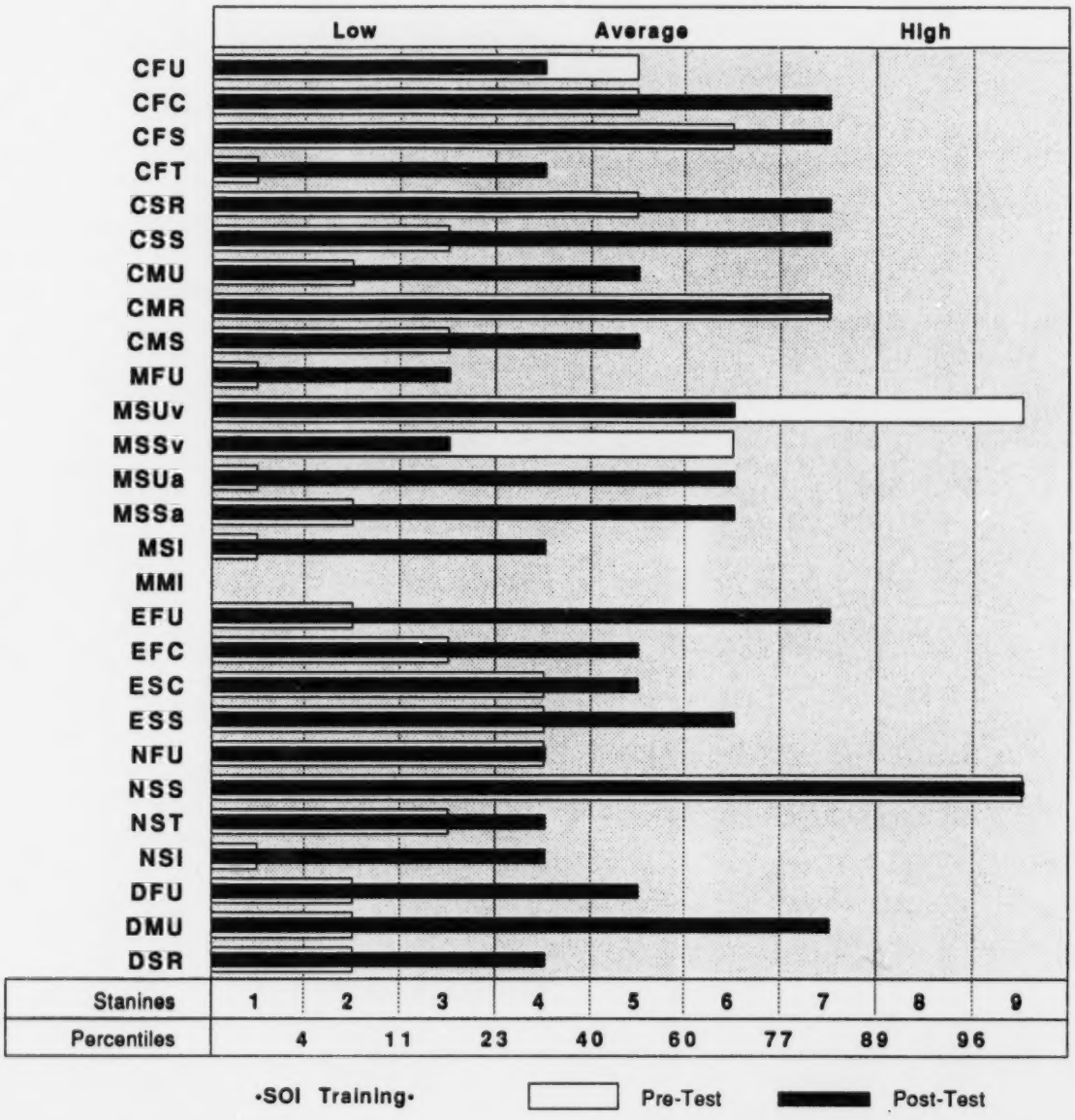
The Canadian Test of Basic Skills (Form 7) was readministered after a 16 month interval. Dan scored at a grade 8.0 level showing some improvement in both accuracy and reading fluency. The SOI-LA (Form B) was also readministered indicating growth in 20 of the 26 subtest areas. Generalized areas of gain, as outlined on the SOI, include: an increase of 1 stanine in semantic abilities; an increase of 2 stanines in both evaluation and creativity skills; an increase of 2 stanines in basic arithmetic skills; and significant improvement in auditory memory skills. Pre-post analysis results are presented on the following page.

SOI SYSTEMS
45755 Goodpasture Rd.
Vida, OR 97488

503-896-3936

Dan

The SOI Learning Abilities Test has twenty-six different subtests; the following is an evaluation of your pre-test and post-test performance on each of the subtests.






Copyright 1980, 1990 by Mary Meeker

## CASE STUDY 2: Jean

Jean was referred to the Learning Disabilities project by an Adult Basic Education Instructor at Parkland Regional College. Jean was enrolled in an academic upgrading program and was experiencing a significant amount of difficulty in several subject areas. As a result of feelings of frustration and hopelessness in her ability to learn and master new material, Jean was contemplating leaving the program. This meant that she would also be abandoning her goals of participating in a specialized training course which she hoped to enroll in after completing her grade 10.

### Background Information:

Jean is a 44 year old woman. She suffered from encephalitis as a child and spent a substantial amount of time in a coma. Jean stated that school was an awful experience and she recounted numerous instances when school mates and teachers told her that she was "stupid". Jean repeated one grade during her early years at school and, after years of struggle, was placed into a work study program. As a result, feelings of inadequacy and low self-esteem became major hurdles to overcome before any real success could be achieved. It had become easier to simply say, "I can't do it" or "I can't remember" rather than attempt a task and, in doing so, risk failure.

Jean left school at the age of 16 having completed only grade 7. After leaving the school system, she entered a number of educational and work-related programs but always quit before program completion. It was after several attempts at other programs that Jean entered the Adult Basic Education program at Parkland Regional College. Jean had been in the program for a period of 7 months, with relatively little success, when she was referred to the Learning Disabilities project by a concerned instructor.

### Test Performance and Interpretation:

Screening checklists completed by Jean's instructors indicated difficulties in a number of areas - namely, math processes, reading comprehension, writing and organizational skills, spelling and memory abilities.

WRAT-R scores obtained at the time of program entry indicated that Jean was reading at the beginning of the fifth grade level, while her spelling skills were at the end of the third grade level. The SOI-LA (Form A) assessment device was also administered suggesting that her preferred learning style was symbolic, while both semantic and figural abilities were at the disabling range. Comprehension and memory skills were also at the disabling range; however, problem-solving appeared to be an area of relative strength. Jean's reading profile was very low - both in terms of comprehension and concept use. Arithmetic skills, an area of relative strength, were significantly higher than mathematics skills (disabling range). Jean also scored low in five of the seven systems tests which is a preliminary indication of dyslexia.

**Intervention:**

Jean was matched with a tutor a few months later at which point strategies for mathematics, memory skills and reading comprehension were introduced and modelled. At the same time, Jean also received additional SOI training from one of her instructors. Within the tutoring relationship, Jean required lots of encouragement and ample opportunity to practise and reinforce newly acquired skills. It was particularly important for Jean to receive instruction in a very structured learning context. Gradually, the tutor began to notice a positive shift in the way Jean approached tasks. Initially Jean would offer excuses before even attempting a new learning task, while after several months she began approaching new exercises with greater ease and confidence. Her first reaction was no longer "I can't" but rather "I'll try". This change in attitude represented a significant change in Jean's receptiveness to learning and was soon followed by a noticeable improvement in academic skills. The following article, which Jean recently wrote for our local adult learners' newsletter, reflects her experiences with the project in a very positive manner.

**Helping Others**

> I am in the ABE class at Parkland Regional College where I am taking my grade 10. I was having difficulty in learning math and the Literacy staff found tutor's to help me with math.
> Without the help from my tutors I could not have gotten this far in may math as fast as I did.
> Now I would like to help others that need help in learning and become a tutor.
> I think we should be willing to give of ourselves and help others who might need a hand.

Jean has continued to meet with her tutor twice weekly and has, to date, spent approximately 55 hours in tutoring sessions.

**Post-testing:**

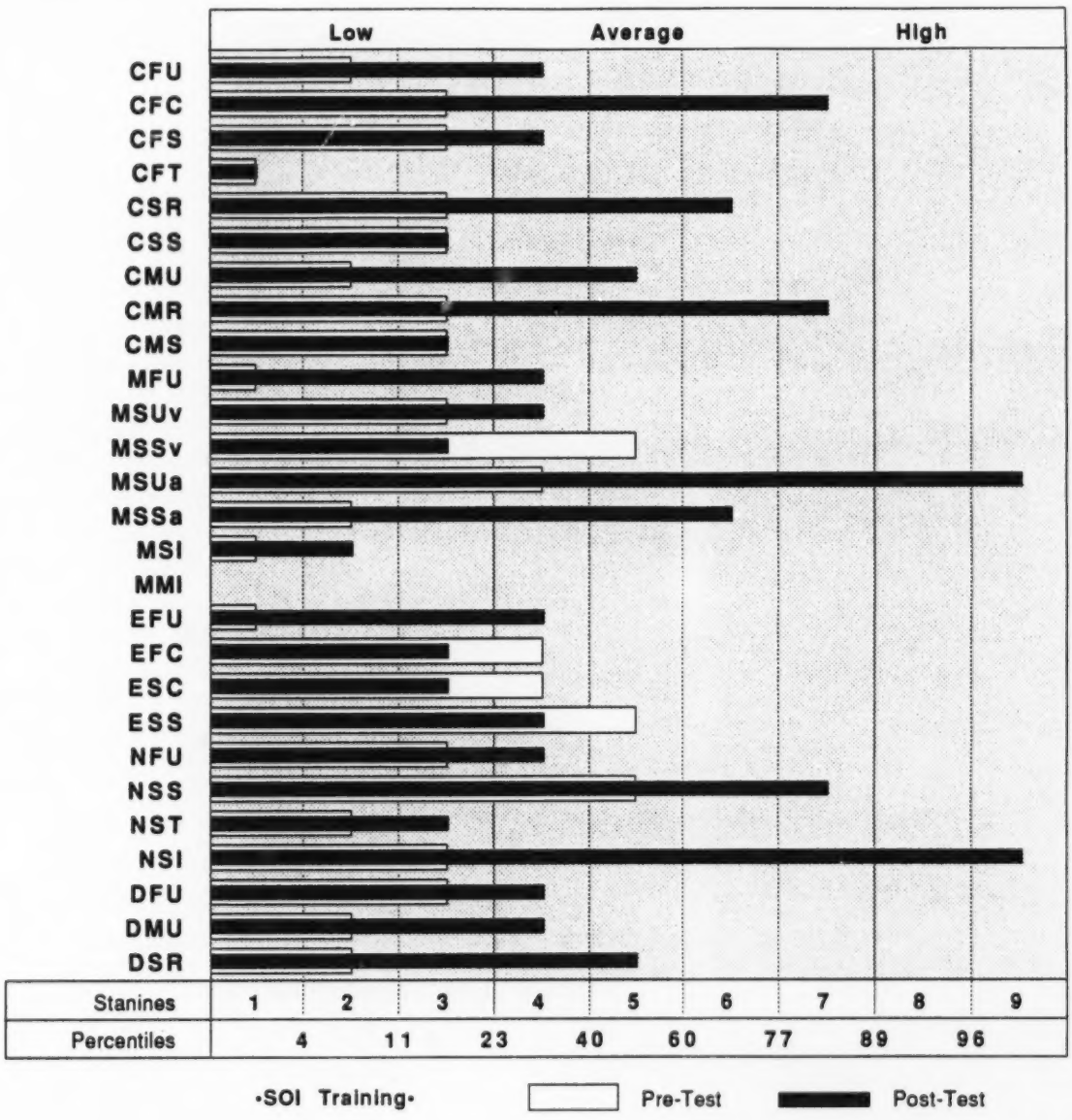
Following a 14 month interval, the reading and spelling subtests of the WRAT-R were readministered. Jean's scores rose to the end of the seventh grade level in reading and, less significantly, to the beginning of the fourth grade in spelling. An analysis of SOI-LA pre-post results, as depicted on the following page, illustrates marked improvements in 19 of the 26 subtest areas. Areas of growth include: semantic abilities increased 1 stanine; problem-solving abilities improved 3 stanines; concept use increased 1 stanine; mathematics skills improved 3 stanines; and substantial improvements were made in the area of auditory memory.

SOI SYSTEMS
45755 Goodpasture Rd.
Vida, OR 97488

503-896-3936

Jean

The SOI Learning Abilities Test has twenty-six different subtests; the following is an evaluation of your pre-test and post-test performance on each of the subtests.






Copyright 1980, 1990 by Mary Meeker

## CASE STUDY 3: Mervin

Mervin was referred to the Learning Disabilities project by his tutor after a 14 month tutoring period which had not been very successful. Both Mervin and his tutor were frustrated with the lack of progress and felt that additional testing was required to provide a new direction for their tutoring sessions.

**Background Information:**

Mervin is 34 years old, single and lives at home with his parents on the family farm. Mervin joined the adult literacy program at Parkland Regional College in March, 1987 and had worked with a tutor for a couple of years on a very periodic basis. Lessons were scheduled around Mervin's sporadic work periods and, therefore, occurred rather infrequently. Progress was minimal and skills, once introduced and practised, were usually forgotten within one or two weeks. As a result, frustration levels were very high making both the tutor and student feel inadequate in their respective roles. Mervin's previous educational experiences revealed similar patterns of difficulty.

**Test Performance and Interpretation:**

Informal assessment results available from an interview which occurred in April, 1989 indicated that Mervin was functioning at the second grade level in reading. The SOI-LA (Form A) test indicated that Mervin's preferred learning style was symbolic, with semantic abilities falling in the disabling range. Comprehension and problem-solving skills were low average. With the exception of strong figural memory, memory skills were at the disabling range. Mervin scored at the limiting range in arithmetic skills; however, math-related abilities were in the superior range. Additionally, Mervin scored very poorly on several systems subtests which suggested the possibility of a specific type of learning disability often diagnosed as 'dyslexia'.

**Intervention:**

Mervin was rematched with another tutor at the request of his first tutor who felt ill-equipped to assist a learning disabled individual. During their tutoring relationship that followed, it was recommended that lessons focus on Mervin's strengths utilizing his strong figural memory skills. Lessons were organized on a more regular basis with meetings arranged once weekly. It is estimated that Mervin received 100 hours of specialized tutorial assistance over a 15 month tutoring period.

**Post-testing:**

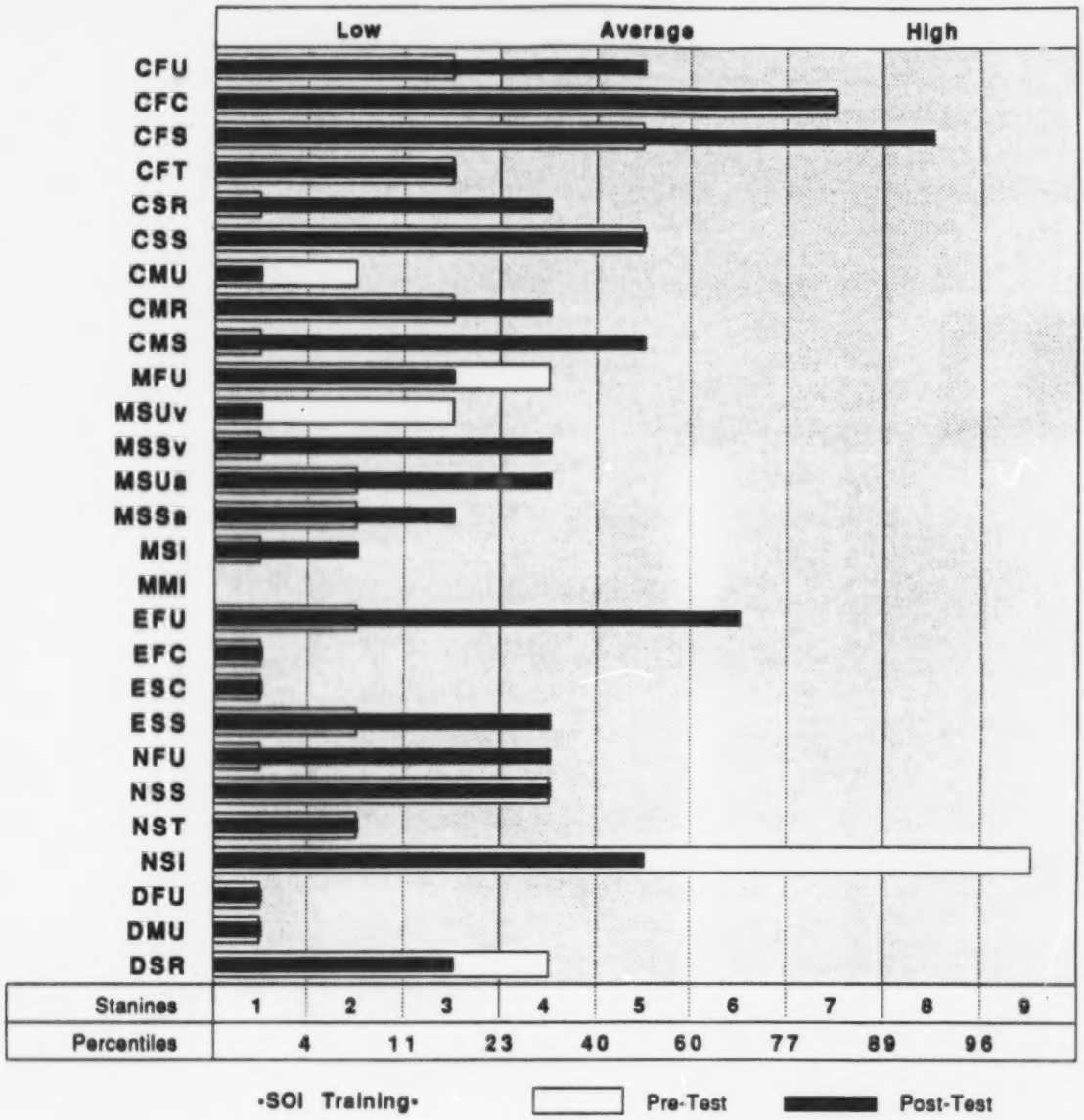
Following a 2 year interval, the SOI-LA (Form B) was readministered. Mervin's pre-post analysis results show gains in 12 of the 26 subtests. The most significant areas of gain were in the areas of: auditory memory; verbal relations and comprehension; notational relations and processes; and psycho-motor coordination.

SOI SYSTEMS
45755 Goodpasture Rd.
Vida, OR 97488

503-896-3936

Mervin

The SOI Learning Abilities Test has twenty-six different subtests; the following is an evaluation of your pre-test and post-test performance on each of the subtests.






Copyright 1980, 1990 by Mary Meeker

## CASE STUDY 4: Marie

Marie referred herself to the Learning Disabilities Project because she felt that the difficulties which she had experienced in upgrading her skills and in obtaining satisfactory employment were attributable to a learning disability.

**Background Information:**

Marie is 36 years old, the oldest of five children. She is the only member of her family to have experienced difficulties in learning. Marie reported struggling through school and repeated two early grades before dropping out after grade 10. She is a single parent of two young children and is currently unemployed. Marie's employment history has been sporadic with a series of full and part-time jobs spaced intermittently over several years. Marie stated that she wished to return to school to upgrade herself but was afraid that past learning difficulties would resurface making any future attempts at school equally unsuccessful.

In a writing sample obtained at the point of program entry, Marie wrote: "I am looking forward, but I am also scared about coming back to school. I really want to have my Grade 12, but the thought of going back to school is very frightening. The pressure of school, teachers, and the thought of homework is scary. If there is a way there is a will."

**Test Performance and Interpretation:**

The screening checklist and initial interview suggested that Marie was experiencing difficulty in the areas of language, literacy skills and memory. WRAT-R scores established that Marie was functioning at the end of the sixth grade level in both reading and spelling. The Woodcock Reading Mastery tests (Form A) provided further information on reading abilities with subtest scores as follows: word comprehension 7.7; passage comprehension 7.2; and a total reading grade score of 6.6. Additional information obtained through the SOI-LA assessment (Form A) included: semantic abilities at the disabling range while symbolic abilities were high average; comprehension skills at the below average range; problem solving in the average range; visual memory difficulties, particularly visual sequencing; strong evaluation abilities; a weak reading profile, particularly in terms of concept use; arithmetic skills in the above average range while mathematics skills were in the low average range.

**Intervention:**

Marie began one-on-one tutoring with an experienced volunteer tutor in July 1990 while, a few months later, also enrolling in the I.B.M. PALS computer program. Marie attended the PALS program during the period of September 19 to November 20, 1990 for a total of 143 hours of computer-assisted instruction. During the tutoring sessions, a variety of learning strategies were introduced and reinforced - particularly in the areas of reading comprehension, vocabulary development, spelling skills and visual memory. One or two tutoring sessions were scheduled

per week for a total of 27 instructional hours, with an additional 50 hours spent in independent study which reinforced strategies taught during lessons. Tutoring sessions discontinued in December 1990 and resumed again in December 1991; absence was due to the birth of a second child. Lessons with her tutor continue as Marie now prepares for the GED 12 examination.

**Post-testing:**

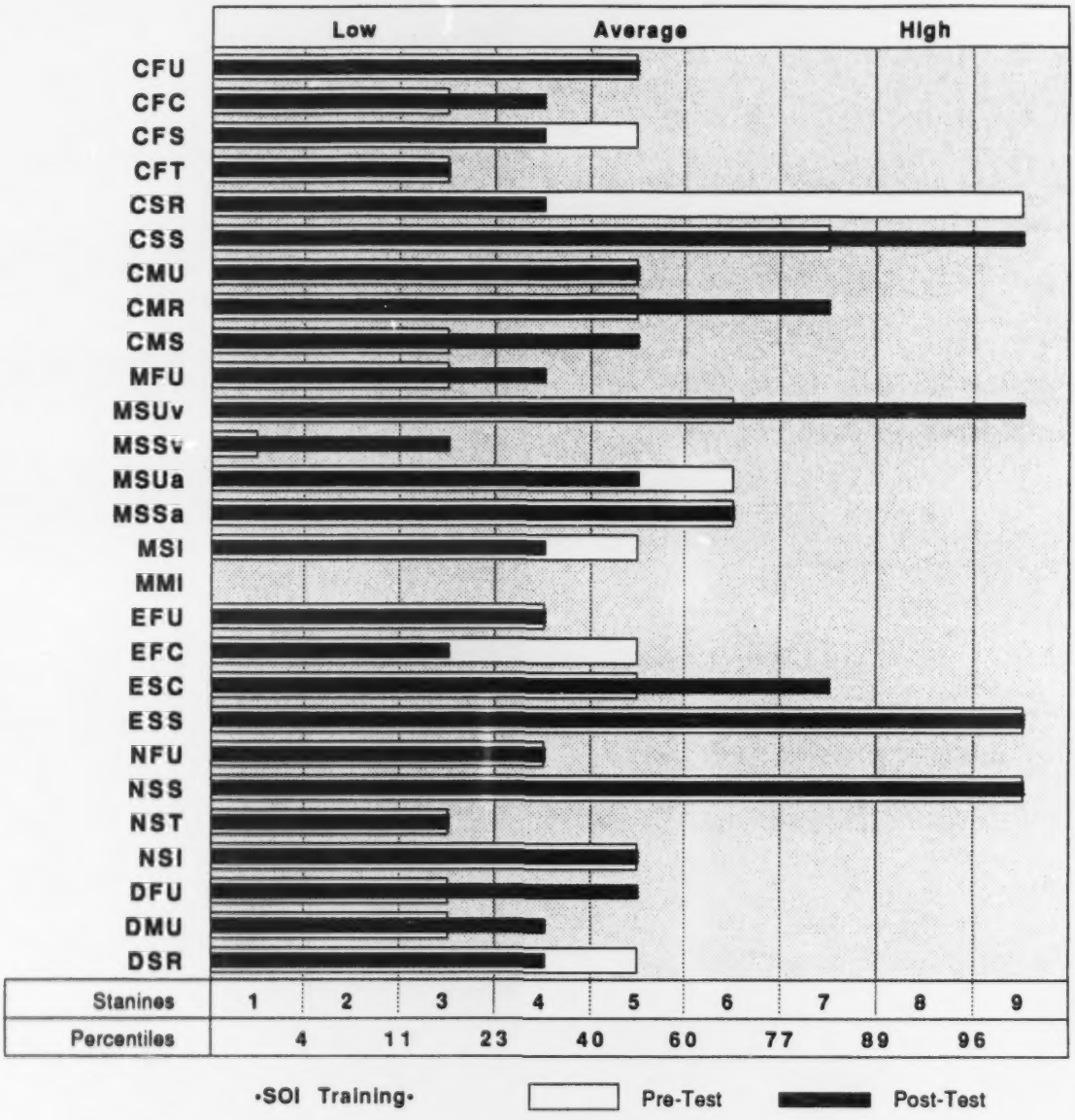
The WRAT-R spelling subtest was readministered after a 14 month interval revealing that Marie's spelling skills had advanced to the end of the ninth grade level - a gain of three grade levels. Woodcock Reading Mastery scores (Form B) were: word identification 11.8; word attack 6.7; word comprehension 11.2; passage comprehension 9.2; and a total reading grade score of 9.1 - thus representing an overall gain of 2.5 grades in reading abilities. An analysis of SOI-LA pre- and post-test results indicates that significant gains were made in 10 of the 26 subtest areas. Areas of gain, as represented on the SOI, include: an increase of 2 stanines in semantic abilities; an increase of 1 stanine in concept use; and significant increases in both visual memory and creativity. This analysis is presented graphically on the following page.

SOI SYSTEMS
45755 Goodpasture Rd.
Vida, OR 97488

503-896-3936

Marie

The SOI Learning Abilities Test has twenty-six different subtests; the following is an evaluation of your pre-test and post-test performance on each of the subtests.






Copyright 1980, 1990 by Mary Meeker

## CASE STUDY 5: Lorne

Lorne approached Learning Disabilities project staff in November, 1989 stating that he had previously enrolled in two other adult literacy programs but found that neither had been helpful in meeting his learning needs. After hearing about the project through the media, he indicated an interest in undergoing specialized testing so that he might better understand his learning strengths and weaknesses. Lorne hoped that with this information and specialized tutorial assistance he could enhance his skills to a level which would help him obtain employment.

### Background Information:

Lorne is a 47 year old man, married, with two children. He has had a varied work history which ranged from mechanics, welding, farming and logging all the way to owning and operating a hotel. He stated during the initial interview that he had, at certain points during his work history, "made more money even not knowing how to read and write than most other people do who can". A major drawback to having only minimal literacy skills though was that Lorne was often able to obtain only seasonal employment. In addition to this concern, Lorne was also very self-conscious about his inability to read and write and constantly worried that one day he "would be found out". At the point of program entry, Lorne had recently experienced some serious financial difficulties and was on an assistance program. He hated being so dependent on government "hand-outs" and wished desperately to find stable employment.

When asked about previous educational attainment, Lorne's response was that he "didn't remember". In follow-up conversations, occasional pieces of information were revealed which suggested that he had probably completed up to the fifth or sixth grade level in the regular school system. All recollections of schooling were very negative and were expressed only with great discomfort.

### Test Performance and Interpretation:

During the initial interview and testing situation, Lorne exhibited an extreme amount of anxiety when asked to attempt any tasks involving reading and writing skills. Through the assessment process, it was determined that Lorne was functioning at a very low level of literacy - with reading skills at below the first grade level and writing skills limited to a few words. The SOI-LA (Form A) assessment provided much useful information in determining a suitable program plan for Lorne. While the assessment indicated a language-based learning disability, it also revealed that figural/spatial abilities were an area of strength for Lorne as were evaluation skills and mathematical concepts.

**Intervention:**

Lorne's involvement in the Learning Disabilities project initially began with tutoring sessions facilitated by a trained volunteer tutor. Lorne met frequently with his tutor during the seven month period that he was registered in the program. His initial anxiety about learning was soon replaced by an eagerness to try. It is estimated that approximately 35 hours were spent in sessions with his tutor, with another 120 hours spent working independently. Once confidence in his own ability to learn had improved, he also joined the I.B.M. PALS computer program with participation in that program extending from January to June, 1991. As his sight vocabulary, reading comprehension and writing skills developed, these newly acquired skills lead to several exciting "firsts" for Lorne. He often dropped by the office to share experiences such as how wonderful it felt to fill out an application form for the first time or write his first cheque. Each new word learned or spelling strategy mastered became a success to be shared and celebrated.

**Post-testing:**

The Woodcock Reading Mastery tests (Form A) were administered in January, 1991. Subtest scores were as follows: letter identification 6.2; word identification 2.4; word attack 2.6; word comprehension 2.1; passage comprehension 2.8; and a total reading grade score of 2.9. This represented a gain of approximately 2 grades over a three month period of tutoring.

Post-testing on both the Woodcock and SOI-LA was scheduled for June, 1991; however, Lorne obtained full-time employment a few weeks prior to that date and had to relocate for those reasons. Lorne is still employed in the same position a year later. He attributes his success to the Learning Disabilities project and PALS program, and to the increased confidence he gained in improving his skills.

A writing sample, in the form of a letter, was obtained a few months before Lorne left the program. It is as follows:

*"Dear Jeannie,*

*We are fin and spring is here. We looking forward to seeing you and your famle this summer. How is Kim doing with his work and when is he going back to school. What is he going to take in University. How is Melissa doing in her gymnastics. How was your trip to Gulph, Ont and how long were you there. How was Vicky and her famle. Is Vicky still working for the same outfit that she was working for. How is Elmers work. Has his work picked up since we were there. How is Lise doing. Did she fin nother job. If she does you will let us now. Write soon I will be waiting for a letter from you very quikly.*

*Your Brother,*

*Lorne"*

Although errors in punctuation and spelling are evident, Lorne was able to complete yet another "first" in writing this letter to a family member. The power and pride which Lorne felt in accomplishing this simple task is beyond measure.

## SUPPORT SERVICES

Analysis of an informal needs assessment of learning disabled adults involved in the project indicated a complexity of needs which would require a broad range of support services. These findings were substantiated by recommendations outlined by the Learning Disabilities Association of Canada. In the Literacy and Learning Disabilities Project Report (April, 1989), LDAC stated that support services for adults with learning disabilities should include the following components:

1. Information sessions on learning disabilities and literacy to help clients label and understand their long-standing difficulties and failures;
2. Support groups for adults with learning disabilities to provide opportunities to vent feelings and share concerns;
3. Access to appropriate program accommodations; and
4. Individual therapy, if required.

In beginning to address some of the needs expressed by participants, several support services were implemented. Initially, a series of information sessions on learning disabilities were organized to assist project participants in understanding their learning difficulties as well as to provide opportunities to express their frustrations and concerns. Enhanced self-understanding and a forum for emotional release facilitated a much-needed healing process and led to the formation of an on-going support group. The group, which was facilitated by an experienced life-skills coach, set the direction for activities undertaken and topics discussed. The group met regularly, usually once or twice weekly, and quickly became an important component of their routine. It became a vehicle for venting feelings, for gaining personal insights, and for receiving information and support. If a student was feeling discouraged, other participants provided encouragement and often helped the individual to view situations in other, more positive ways. The following is a brief list of themes explored through the support group environment: Making Changes, What People in Our Group Are Good At, Ideas About Learning Problems, and How To Improve Our Learning Environment. At one session, the group decided to call themselves the Star Group as it represented "learning to build a better future".

Access to appropriate program accommodations were provided on a case-by-case basis. Project staff met with instructors, counsellors and other organizational staff members to discuss the accommodations which would be most appropriate for a particular individual and, once identified, to determine how those supports could be implemented with minimum disruption in the classroom. Accommodations most often provided included: extended time on assignments and exams, tape recording lectures, access to notes taken by other students, assistance with timetabling and related organizational skills, and alternate exam formats (essay vs. multiple choice exams). Lastly, if individual counselling was required access to such services were provided.

"The over-all goal of an adult ... program should be that of empowering the whole person. To assist in accomplishing this, the legitimate concern of counselling and support can be any area of life in which students need help."

(Project READ, 1990, p. 90)

## DIFFICULTIES ENCOUNTERED IN THE PROJECT

**Volunteer Tutor Considerations:**

When working with volunteers, several considerations must be noted. Record keeping, which is a priority for research purposes, is a task which can place too many demands on individuals who function in a volunteer capacity. Project needs and requirements do not always coincide with the needs and priorities of the tutor and learner pair. Consequently, precise record-keeping was not possible given the setting in which this project operated.

Additionally, when selecting volunteer tutors to work with learning disabled adults it was necessary to undergo very careful selection procedures. Sensitivity, flexibility, patience and understanding were key attributes in the volunteers who were chosen to tutor adult learning disabled students. It was also important to select volunteer tutors who were willing to make a long-term commitment to the tutoring program. In one instance in the project, a tutor exited the program because she felt she was not equipped to work with a learning disabled student. It was her perception that only "qualified teachers" could undertake such a task. These feelings of inadequacy are important considerations when operating a volunteer based program. (It was very important.) Following this experience, it was very important to recruit volunteers who were willing to take on a challenge and who would adapt the programme on an on-going basis, if necessary, to meet learner needs.

Lastly, the level of support required by volunteer tutors who are tutoring learning disabled adults appears to be greater than for tutors working with an adult literacy student. Tutors felt more comfortable when frequent contact with project staff was made. The reassurance that the direction taken by the tutor was appropriate was very important to volunteers. Recognizing this need for a stronger support component is important when making programming and/or staffing decisions.

**Considerations in Working with Learning Disabled Adults:**

There are also several factors to consider when examining the many needs of the learning disabled adult. Given the many roles which the adult learning disabled individual assumes, it is important to build flexibility into the program design. For many of the adults registered with the Learning Disabilities Project, a full-time classroom based program would not have been an option given other responsibilities - whether family or work related. What was needed was a program which could be designed around their schedules, goals, needs and interests. This was most easily achieved through an individualized tutorial program. With this approach, certain drawbacks also exist. Progress achieved was affected by the time available for tutoring sessions on the part of both the volunteer and the student. Schedules, work commitments and geographical considerations are all variables which can impact on the tutoring relationship and, ultimately, on an individual's level of academic achievement.

For those adults who are not working and wish to spend extra time in developing their skills, these options are not always possible within a tutorial program. Generally, tutors met with students between one to three times per week. For those students who wished to spend more time in tutoring, it was primarily a decision to be made between tutor and learner. At times, additional sessions could be scheduled. At other times, this was simply not possible.

Another difficulty encountered with the target group was the level of test anxiety experienced by several of the project participants. A substantial amount of time was required to develop rapport and trust with project staff before testing was attempted. Even when a comfort level had been established, the thought of "testing" was often overwhelming for learners. Too combat these negative feelings, accommodations within the testing situation were often required to gain an accurate profile of learner's abilities.

Finally, the real-life needs and concerns of the learning disabled adult must remain a priority. At the point of post-testing, many individuals who had been very involved in the project were unavailable for retesting. Many had acquired employment - some permanent positions, while others gained seasonal employment. The need of project staff to obtain post-testing information for research purposes was incongruent with the need of participants for meaningful, full-time employment. For this reason, post-testing, in several instances, was not possible.

## SUMMARY AND CONCLUSIONS

The main objectives of this two-year developmental project, entitled "Literacy for the Learning Disabled Adult", were to:

1. Identify screening and assessment procedures which would be appropriate for adults with learning disabilities;
2. Identify the training requirements of volunteer tutors who were matched, in a one-to-one learning situation, with a learning disabled adult:
3. Determine the support services required by adults with learning disabilities;
4. Compile a list of recommended resources; and
5. Prepare specialized instructional resources suitable for use by volunteer tutors in their work with learning disabled adults.

To achieve these objectives, an initial screening checklist was developed for use by tutors and other paraprofessionals in identifying adults who displayed characteristics common to adults with learning disabilities. A diagnostic process was implemented which included the use of the Structure of Intellect Learning Abilities test, in addition to a variety of other formal and informal assessment procedures. The training requirements of volunteer tutors were identified and specialized training workshops were subsequently conducted. The tutoring relationship between volunteer tutor and the learning disabled adult was then initiated and continued with the assistance of project staff. The support services of project participants were determined and a support group was formed to address a variety of social-emotional needs. These needs were further addressed through access to individual counselling and advocacy assistance by project staff. A wide range of resources were purchased for experimentation by tutors and learners. As a result, a list of recommended resources was compiled and has been included in this report. (See Appendix.) Lastly, a specialized instructional resource manual for volunteer tutors was produced. This publication, entitled "Instructional Strategies for Adults with Learning Disabilities", presents a series of teaching strategies suitable for use with adults who are experiencing learning difficulties.

**Conclusions:**

1. The majority of learners involved in the project displayed multiple areas of learning dysfunction as assessed through the diagnostic process. Individual program plans focused on the attainment of individual goals and the progress which resulted from tutorial intervention was as varied as were the learners' reasons for enrollment. With such a varied group, success can only be measured in terms which are meaningful to the learner. For all participants, their experiences in the project were stated as being very positive.

2. In discussion with staff, volunteer tutors and project participants involved in the programme, improved self-concept was repeatedly noted as an outcome. Learners were described as more confident, more assertive, more expectant of success, and more willing to attempt learning tasks. With a positive self-concept being an important prerequisite for successful learning, it is believed that this enhanced self-esteem is a crucial result obtained during the project.

3. The importance of providing specialized training and ongoing support to volunteer tutors was a critical element in the success of this project. Resources which can provide alternate teaching and learning strategies are essential for practitioners working with this population. In addition, ongoing support is also crucial since the nature of the tutoring work makes it highly demanding - both professionally and psychologically.

4. Student participants in the programme are also in need of support and ongoing encouragement. Information collected informally indicated that a support group run by and for the learners was very important for those who chose to participate. Further work on developing and implementing similar support groups is warranted; these groups have the potential to develop self-advocacy skills as well as providing much-needed individual validation and support services.

5. This project points to a need for a wide range of services to deal with the adult population who experience significant difficulties with learning. This range of services should ideally consider both level of involvement in specific programming and intervention, and a variety of options for follow-up training and support.

6. The importance of individual, specific assessment and the development of a detailed plan of intervention involving both the learner and the tutor was supported by this programme. With each adult learner, the actual discussion of patterns of strengths and areas of weakness was perceived as a positive and vitally important component.

7. One major strength of this project, and one which should be a component in similar programmes, was the level of cooperation between the learner, the tutor and project staff. By directly involving the learners in the process, from assessment through goal setting to evaluation, the programme enabled them to exercise some control over their learning situations, and to experience increased feelings of competence and self-confidence.

8. The goal for many adult participants within the project involved transitions to other programs or employment. In the majority of instances, this transition process was successfully achieved. It should be noted, however, that if adults with learning disabilities are to meet future goals with continued success, support services must be available within these organizations. It is only through recognition, understanding and support of special learning needs that adults with learning disabilities can maximize their potential. Herein lies the challenge for both the employer and the educational community at large.

## - REFERENCES -

*Bringing Literacy Within Reach: Identifying and Teaching Adults with Learning Disabilities.* Ottawa, ON: Learning Disabilities Association of Canada, 1991.

Lerner, J. *Learning Disabilities: Theories, Diagnosis, and Teaching Strategies.* Boston, MA: Houghton Mifflin Company, 1989.

*Literacy and Learning Disabilities Project Report.* Ottawa, ON: Learning Disabilities Association of Canada, April 1989.

Meeker, M., Meeker, R. & Roid, G. *Structure of Intellect Learning Abilities Test Manual.* Los Angeles, CA: Western Psychological Services, 1985.

Smith, M. & Dalheim, Z. *Project READ: A Study of Twenty Reading Disabled Adults.* Pittsfield, MA: Pittsfield Adult Learning Center, 1990.

*Study of Literacy and Learning Disabilities Project Report.* Ottawa, ON: Learning Disabilities Association of Canada, June 1989.

# Appendix

# PUBLICATIONS

## PROFESSIONAL REFERENCE AND TRAINING RESOURCES

The resources listed are provided as a guide for suggested reading and program use. This information is not intended to be a comprehensive listing of publications on the topic of learning disabilities - rather, it is a list of popular titles that can serve as a starting point for administrators, practitioners and tutors who are interested in further exploration of the field of learning disabilities.

* Alley, G. & Deshler, D. Teaching the Learning Disabled Adolescent: Strategies and Methods. Denver, CO: Love Publishing Co., 1979.

  *Based on a learning strategies approach, this book outlines a variety of strategies which will assist learning disabled adolescents and adults in learning how to learn.*

* Bingman, M.B. Learning Differently: Meeting the Needs of Adults with Learning Disabilities. Knoxville, TN: University of Tennessee, 1989.

  *Provides an overview of learning disabilities, identifying characteristics and suggested approaches for diagnosis and teaching.*

* Breaking the Unseen Barrier: Program 1 - We're Not Stupid. Calgary, AB: ACCESS Network, 1988.

  *A fifteen minute video which portrays the emotional impact of learning disabilities. Through interviews, children and adults discuss their fears, frustrations, hopes and successes.*

* Bringing Literacy Within Reach: Identifying and Teaching Adults with Learning Disabilities. Ottawa, ON: Learning Disabilities Association of Canada, 1991.

  *The manual was designed to assist literacy practitioners in identifying adults with learning disabilities and to provide teaching strategies useful in meeting individual learning needs.*

- Directory of Resources 1991. Ottawa, ON: Learning Disabilities Association of Canada, 1990.

  *Lists books, reports, a-v materials, computer software, special schools, resource centres and assessment facilities available in Canada.*

- Gearheart, B., DeRuiter, J. & Sileo, T. Teaching Mildly and Moderately Handicapped Students. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1986.

  *Although the primary focus of this book is on methods and techniques for teachers of children with learning disabilities, many of the metacognitive strategies suggested are appropriate for adult learners.*

- Goldstein, R. Taking the Mystique Out of Learning Disabilities - A Practical Guide for Literacy Tutors. Saint John, NB: Laubach Literacy of Canada, 1989.

  *This guide is intended for tutors, teachers, administrators and students reading at upper levels who would like to learn more about learning disabilities. The book includes definitions, background information, identification and recommended techniques.*

- Hollander, L. and Palamar, M. Teaching Adults with Learning Disabilities. Albany, NY: The University of the State of New York and the State Education Department, 1990.

  *A professional development package, which includes two video tapes and an instructional manual, focusing on the identification of and instructional strategies for learning disabled adults.*

- Hoy, C. & Noel, G. Academic Assessment and Remediation of Adults with Learning Disabilities: A Resource Series for Adult Basic Education Teachers. (Assessment and Remediation of Reading.) Athens, GA: Clarke County Board of Education, 1984.

  *This booklet examines the assessment and remediation of reading difficulties in adults with learning disabilities. Both reading recognition and comprehension difficulties are addressed.*

- Karassik, J.W. Literacy and Learning Disabilities: A Handbook for Literacy Workers. Ottawa, ON: Learning Disabilities Association of Canada, 1989.

  *The handbook provides information on learning disabilities which will enable literacy workers to identify adults who may have learning disabilities, increase awareness of their needs, and offers some practical strategies and remediation techniques.*

* Keimig, J. & Carlson, S. Learning How to Learn: Teaching Strategies. Allen, TX: Developmental Learning Materials, 1983.

*Resource package includes teaching strategies for writing, reading, thinking, listening and study skills. Designed to teach students "how to learn" rather than teaching specific content.*

* Mangrum II, C. & Strichart, S. College and the Learning Disabled Student: Program Development, Implementation and Selection. Philadelphia, PA: Grune & Stratton, Inc., 1988.

*Discusses: characteristics of college learning disabled students, diagnostic testing, development of individual educational plans, and special services.*

* Miller, S. Special Reading Problems: Some Helps. Syracuse, NY: Literacy Volunteers of America, 1983.

*A training module, which includes slides, audio-cassette, trainer's guide and motes for tutors, enables tutors to focus on learning strengths. Describes the process of reading, learning styles and general guidelines for tutoring adults with learning difficulties.*

* Reading Comprehension: A Reciprocal Teaching Strategy for Adults with Learning Disabilities. (video and tutor's handbook) Calgary, AB: The Learning Centre, 1989.

*Developed for teachers and tutors of adults with reading difficulties, the kit provides information, procedures and demonstrations on the use of reciprocal teaching and semantic mapping strategies.*

* Ross-Gordon, J.M. Adults with Learning Disabilities: An Overview for the Adult Educator. Columbus, OH: Center on Education and Training for Employment - The Ohio State University, 1989.

*Provides an overview of: key issues in the assessment of adults with learning disabilities, principles to guide in the selection of diagnostic instruments, intervention approaches, and policy development.*

- Samuels, M., Burrows, I., Scholten, T. & Theunissen, D. Asking the Right Questions: Assessment and Program Planning for Adults with Learning Difficulties. Calgary, AB: The Learning Centre and Alberta Vocational College, 1992.

  *A manual designed to assist instructors in identifying, and dealing with, specific difficulties encountered by students in literacy and adult basic education programs. Topics covered include: the learning process, blocks to learning, assessment, and developing a program plan.*

- Working with Adults Who Have Learning Disabilities: Project Upgrade. Manhattan, KS: Manhattan Adult Learning and Resource Center, 1988.

  *This handbook is intended to assist educators in developing an understanding for working with learning disabled adults. Information provided includes: characteristics of learning disabled individuals, assessment, tips for instructors and learners, and a discussion on employment and educational implications.*

## EDUCATIONAL RESOURCES

In addition to SOI training modules which were used to develop specific skills, the following resources were selected by volunteer tutors and adult learners involved in the project as most suitable in meeting educational needs and interest levels.

### Reading and Comprehension

* Carlisle, J. Beginning Word Meaning.
  Beginning Sentence Meaning.
  Beginning Paragraph Meaning.
  Beginning Reasoning Skills.
  Cambridge, MA: Educators Publishing Service, Inc., 1982.

  *These workbooks are designed to develop basic language and thinking skills, and to provide a foundation for developing good reading comprehension skills.*

* Carlisle, J. Reasoning and Reading (Levels 1 and 2). Cambridge, MA: Educators Publishing Service, Inc., 1982.

  *Workbooks focus on: word meanings, part-whole relationships, finding categories, analogies, cause and effect. Integrates reasoning, language and reading comprehension abilities.*

* Heinemann Guided Readers. Downsview, ON: Monarch Books.

  *Original, simplified tests provide adult students with a wide choice of reading material. Audio cassettes also available.*

* Job Interview Tips for People with Learning Disabilities. Ottawa, ON: Learning Disabilities Association of Canada, 1990.

  *The package, which contains a booklet and accompanying audio cassette, outlines the steps to take in seeking employment.*

- Read-Along Series. Don Mills, ON: ALS Audio Language Studies Inc.

  *A series of popular and classic titles are presented in an audio package which includes: two cassettes and a word-for-word transcript in large, easy-to-read type. Teacher's Guides also available.*

- Smith, C. For You: Adults with Learning Disabilities. Ottawa, ON: Learning Disabilities Association of Canada, 1991.

  *A book to help adults gain a better understanding of learning disabilities and, through increased self awareness, to develop strategies for more effective communication in all aspects of daily life.*

- Snapshots: A Collection of Readings for Adults. New York, NY: Cambridge, 1984.

  *Adult-oriented collections of real-life stories with controlled reading levels. Comprehension questions following each passage develop and reinforce reading and vocabulary skills.*

- Writers' Voices. Syracuse, NY: Literacy Volunteers of America.

  *A series of popular works by contemporary writers which offer adult students a wide variety of high-interest reading material.*

**Written Language**

- Goldberg, S. & Norman, J. In Your Own Words: A Writing Skills Program for Adults (Volumes 1 and 2). New York, NY: Cambridge, 1987.

  *Teaches basic information needed in drafting and revising stages of the writing process without the use of confusing grammatical terms.*

- Hanbury King, D. Cursive Writing Skills. Cambridge, MA: Educators Publishing Service, Inc., 1987.

  *Designed for adolescent and adult learners who have not mastered cursive handwriting. Includes pre-writing exercises and practice in forming/joining letters.*

* Hanbury King, D. Writing Skills for the Adolescent. Cambridge, MA: Educators Publishing Service, Inc., 1985.

  *Introduces a writing method suitable for adolescents and adults with severe writing difficulties. Cursive writing and the writing process are discussed and taught in a series of logical steps.*

* Rubin, D. Power English: Basic Language Skills for Adults. Englewood Cliffs, NJ: Cambridge, 1989.

  *A ten-book series designed to help adults develop writing skills in the areas of: usage, sentence structure, mechanics and composition. A very structured approach appropriate for use with adults reading between grade 4 - 8 level.*

**Spelling**

* Brown, J. & Pearsall, T. Better Spelling: Fourteen Steps to Spelling Improvement. Lexington, MA: D.C. Heath and Company, 1992.

  *Helps students identify specific types of spelling errors made and provides rules and practice exercises to remediate difficulties. The text focuses on auditory-centered and visual-centered spelling problems.*

* Forest, R. & Sitton, R. Instant Spelling Words for Writing. N. Billerica, MA: Curriculum Associates, Inc., 1988.

  *A series of workbooks which provide a variety of whole language activities to integrate spelling with language.*

* Forest, R. & Sitton, R. The Quick-Word Handbook for Everyday Writers. (Canadian Edition) N. Billerica, MA: Curriculum Associates, Inc., 1990.

  *A resource list of high frequency writing words. Also features a homophone guide, lists of common abbreviations, and a suffix rule reference.*

* Forest, R. & Sitton, R. The Quick-Word Handbook for Practical Writing. N. Billerica, MA: Curriculum Associates, Inc., 1990.

  *A reference book for adult education students which lists high-use writing words, survival words and phrases.*

* Klein, C. & Millar, R. Unscrambling Spelling. London, UK: Hodder & Stoughton, 1990.

  *Based on an individualized spelling programme approach, this resource book examines: myths about spelling, error analysis and guidelines for implementing spelling programmes. Also includes activities and photocopiable resource sheets which can be used with students.*

* Rak, E. Spellbound. Cambridge, MA: Educators Publishing Service, Inc., 1977.

  *Workbook covers many word attack skills including: word patterns, phonograms and syllabication rules. The Teacher's Manual contains teaching suggestions, answers and dictations to reinforce skills.*

* Rak, E. The Spell of Words. Cambridge, MA: Educators Publishing Service, Inc., 1979.

  *Designed for students with a specific language disability, the book covers: syllabication, word building, word patterns, plurals and possessives. Also contains detailed explanations of spelling rules which are reinforced with numerous exercises.*

* Sanborn, L. & Fudali, G. Step-By-Step Spelling - Teacher's Guide.
  Step-By-Step Reading - Teacher's Guide.
  Step-By-Step Reading Activity Books 1 & 2.
  Minneapolis, MN: Learning Disabilities Association, Inc., 1990.

  *A structured program presenting phonics-based teaching techniques geared toward the needs of the adult with learning style differences. Word building tiles, sound pack and training video also available.*

* Steere, A., Peck, C. & Kahn, L. Solving Language difficulties: Remedial Routines. Cambridge, MA: Educators Publishing Service, Inc., 1984.

  *Designed for students who have a specific language disability, the workbook provides extensive practice with: syllabication, prefixes, suffixes, and accents.*

* Sterling Bader, M. Word Work: A Guide for Teaching Word Attack Skills to Language Disabled Adolescents. Cambridge, MA: Educators Publishing Service, Inc., 1984.

  *Provides a multisensory approach for teaching word attack skills to language-disabled learners who need further remediation in reading and spelling.*

- Thomas, V. & Braun, C. Learning to Spell. Toronto, ON: Gage Publishing Ltd., 1983.

  *A comprehensive program designed to improve spelling skills. Modules include: study skills, spelling rules, mnemonic devices, examining misspellings and developing proofing skills.*